



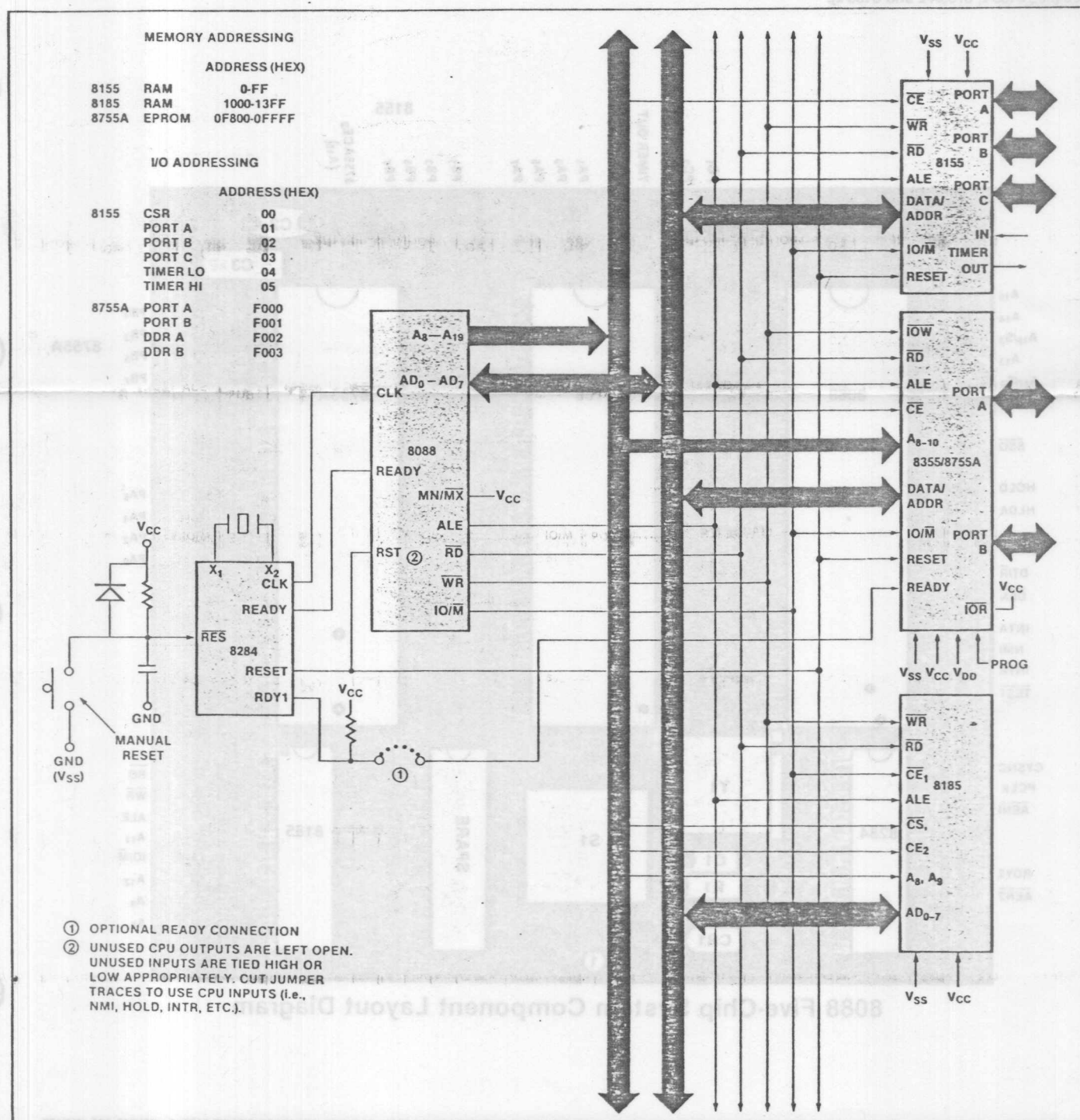
8088 5-CHIP SYSTEM

Shown below is a complete high performance 8086 Family microcomputer system using only five integrated circuits, an 8088 CPU, an 8284 clock generator, an 8155 RAM/IO/Timer, an 8755A EPROM/IO and an 8185 (1K x 8) Static RAM. This minimum system has the following features:

- 5 MHz 8088 CPU with a complete 8086 based 16-bit internal architecture
- Up to 1280 bytes of static RAM
- 2048 bytes of EPROM
- 38 parallel input/output lines
- 14-bit counter/timer
- Non-maskable interrupt
- Power on Reset or pushbutton
- Instruction set 100% compatible with the 8086
- Compact P.C. board layout

The back side shows the P.C. Board layout for part placement and details the list of components necessary for operation. The board operates on a single 5-volt supply.

A minimum system can be built without the 8185 Static RAM, using the 256 bytes of RAM available in the 8155. This system can be expanded to 1280 bytes by adding the 8185. A spare 18-pin socket is also provided for the user's convenience. V_{CC} and GND are provided on pins 18 and 9 respectively.



8088 Five-Chip System Schematic Diagram

PARTS LIST

- 1 Intel 8088 CPU
- 1 Intel 8284 Clock Generator
- 1 Intel 8155 RAM/IO/Timer
- 1 Intel 8755A EPROM/IO
- 1 Intel 8185 1K x 8 Static RAM (optional)
- 1 Crystal, series res. 1.5 to 12 MHz*
- 2 Resistors (1/4 Watt)
 - R1 = 10 k Ω
 - R2 = 51 k Ω
- 3 Capacitors
 - C1 = 1 μ F monolithic
 - C2 = 0.1 μ F monolithic
 - C3 = 22 μ F tantalum
- 1 Diode
 - CR1 = 1N914 or equivalent

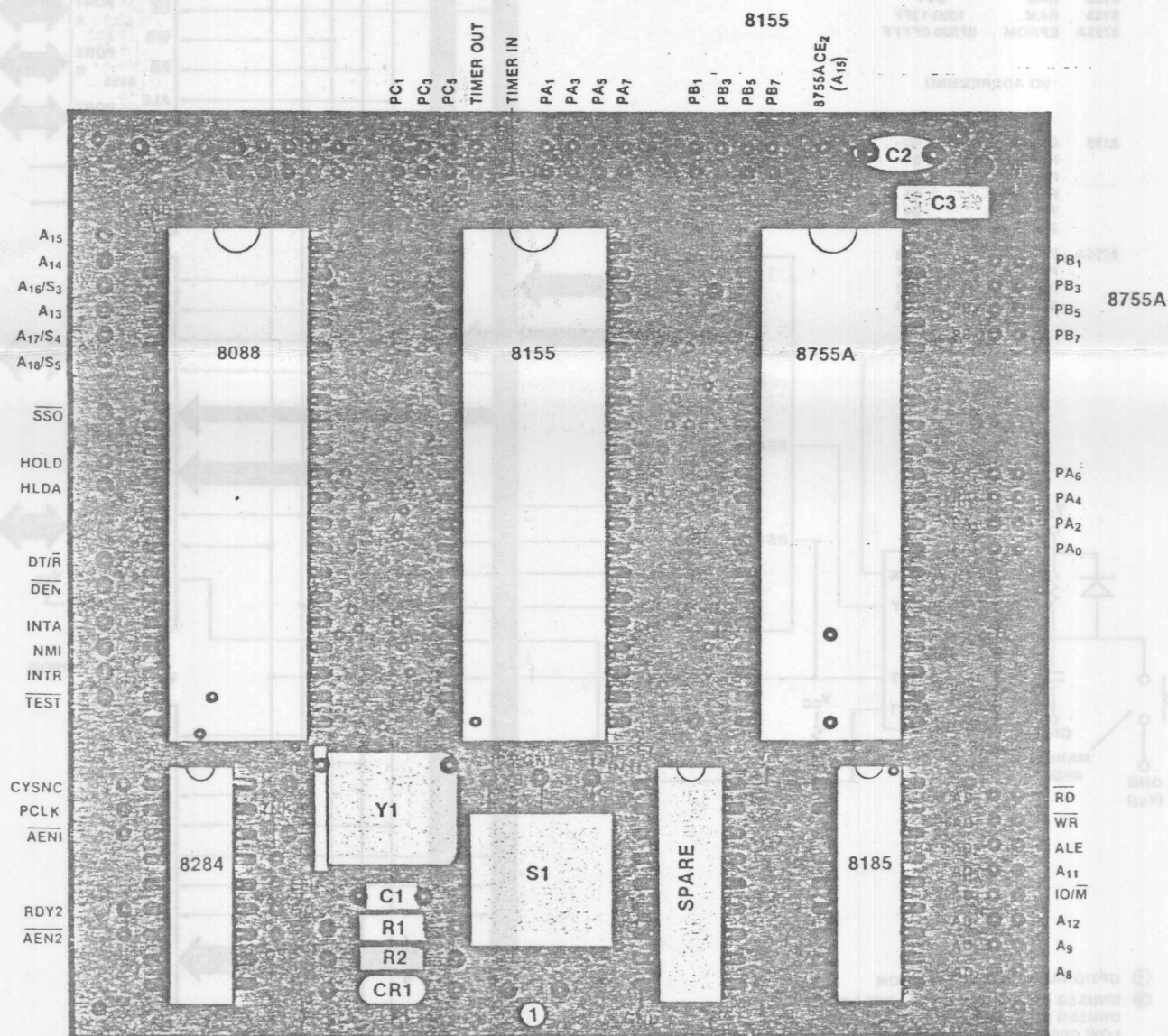
*The 8088 can be operated at 5 MHz (15 MHz crystal) if -2 peripherals are used (i.e., 8185-2, 8755A-2 and 8155-2).

POWER SUPPLY

+ 5 Volts \pm 5% 1 Amp. max.

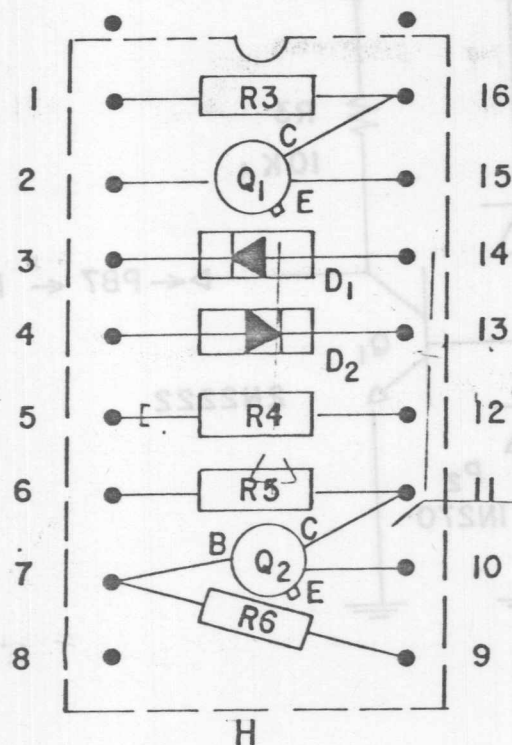
RESET SWITCH

- C&K Model 8168C momentary pushbutton
or
Microswitch 8N1022B momentary pushbutton with PC mounts
or
Alcoswitch MSPS-103C momentary pushbutton
or
Alcoswitch MSMM-101B momentary pushbutton with PC mounts



8088 Five-Chip System Component Layout Diagram

8088 5 CHIP SYSTEM SERIAL INTERFACE HEADER

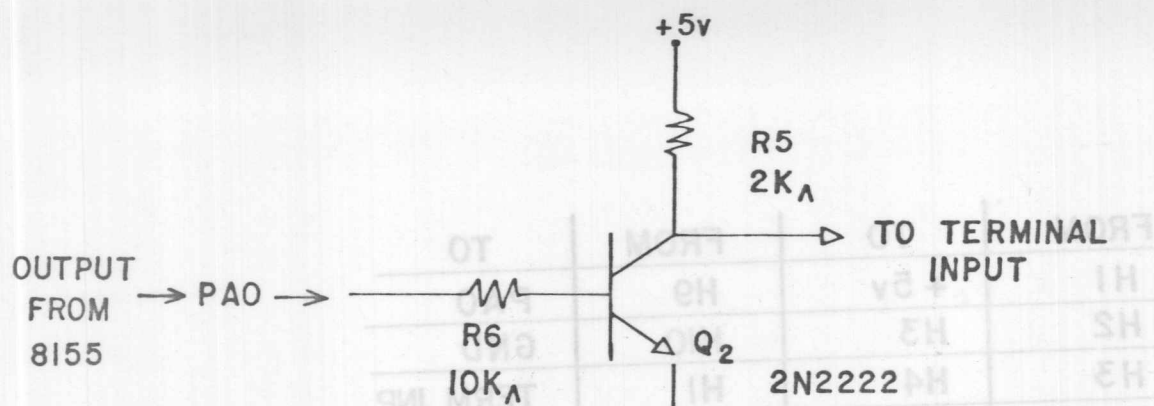
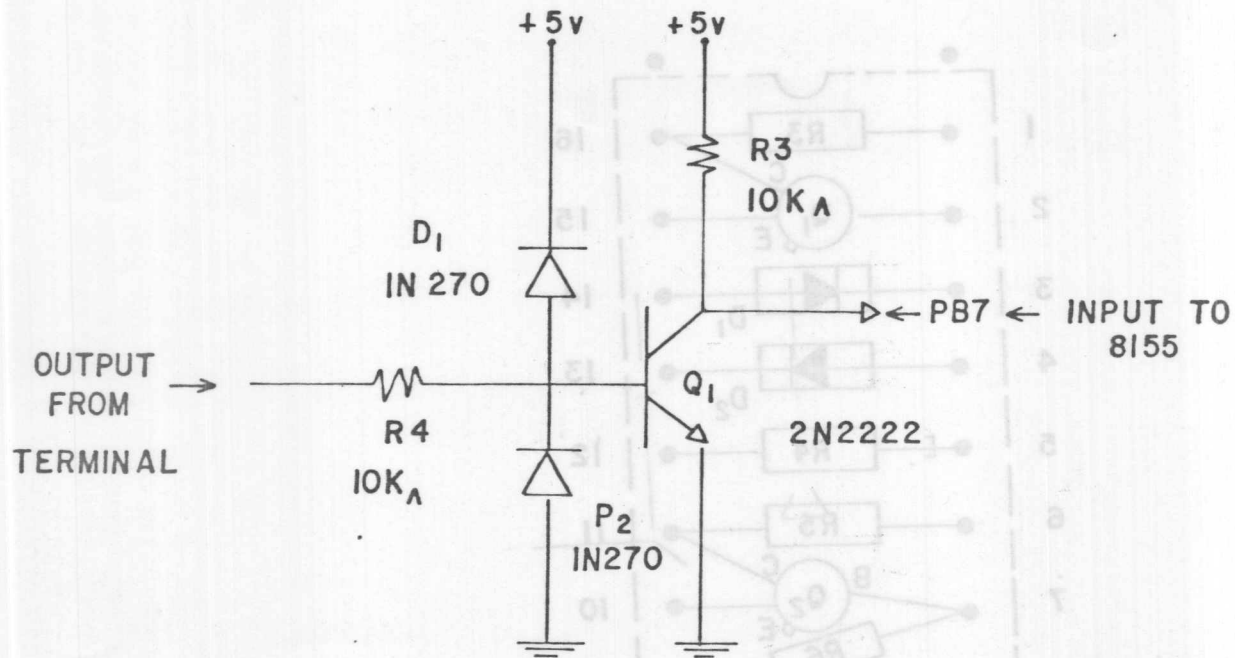


COMPONENT DIAGRAM

FROM	TO	FROM	TO
H1	+ 5v	H9	PA0
H2	H3	H10	GND
H3	H4	H1	TERM. INP.
H4	H5	H12	TERM. OUT.
H6	+5v	H13	+5v
H7	—	H14	H15
H8	—	H16	PB7

INTECONNECT LIST

8088 5 CHIP SYSTEM SERIAL INTERFACE HEADER



SCHEMATIC DIAGRAM